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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,151	10/07/2005	Vittorio Patrono	5722	9157
26936 7590 05/21/2007 SHOEMAKER AND MATTARE, LTD 10 POST OFFICE ROAD - SUITE 110 SILVER SPRING, MD 20910			EXAMINER TRIEU, THAI BA	
			ART UNIT 3748	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/552,151

Applicant(s)

PATRONO, VITTORIO

Examiner

Thai-Ba Trieu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 October 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/07/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Preliminary Amendment filed on October 07, 2006 is acknowledged. Claims 1-15 were cancelled, and claims 16-28 were newly added.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in PCT international on April 08, 2003. It is noted, however, that applicant has not filed a certified copy of the foreign application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

The information disclosure statement filed October 07, 2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Drawings

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings have been labeled with sheet number (i.e. Sheet 1, Sheet 2, etc...). All the figures of the drawings should be labeled with Figure number (i.e. Figure 1 (FIG. 1), or Figure 2 (FIG. 2) etc...). Applicant is advised to employ the

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services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “X” has been used to designate both “X axis” (See Sheet 30 of Drawings; Page 8, line 33, and Page 9, line 1) and “X position” (See Sheet 14 of Drawings; page 10, lines 5 and 31 of Specification). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

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- In the Brief Description of the Drawings, each figure of the drawings should be labeled/numbered with -- Figure 1 -- or -- FIG. 1 --; -- Figure 2 -- or -- FIG. 2 --; -- Figure 3 -- or -- FIG. 3 --; etc...

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 16 and its dependent claims 17-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, the original specification does not describe how can the internal rotor and the external rotor rotate at the same rotational speed, which has been claimed in claim 1?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by Bucur (Patent Number 5,674,059).

Bucur discloses an internal combustion rotary engine comprising
an external rotor (80) mounted for rotation about a first axis (Not shown);
and
an internal rotor (60) within the external rotor (80, 85, 86), mounted for
rotation about a second axis offset from the first axis,
said rotors being mutually restrained and synchronized by synchronization
gear wheels (426) disposed in a common housing so that the rotors rotate in the
same direction and at the same rotational speed on their respective axes (See
Figure 1 and 10, Column 2, lines 15-36).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bucur (Patent Number 5,674,059), in view of Osigwe Godwin Okey et al. (Pub. Number GB 2322913 A).

Bucur discloses the invention as recited above, and further discloses two rotor
vanes (90a, 90b); a stationary seal (Not Numbered) between the internal and external

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rotors, said seal comprising compression rings mounted on the curved convex faces of the internal rotor and on the planet in addition to the satellite rubbing contact (See Figures 1B, Column 1, lines 15-22, Column 9, lines 57-67, Column 10, lines 1-2). However, Bucur fails to disclose four vanes and its structural details.

Osigwe Godwin Okey teaches that it is conventional in the rotary machine art, to utilize four mobile elements (6) mounted on the internal rotor (2), said elements comprising a planet member (6) mounted on the internal rotor (2), which is reciprocated and pushed outwards by a central spring (31), and a satellite member (8a) of a curved shape, fixed at the end of the planet and oscillating around its axis, adapted to act as a compression ring continuously fitting to the inner surface of the external rotor (12) (See Figure 3).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized four vanes and its structural details, as taught by Osigwe Godwin Okey, to improve the efficiency of the Bucur device.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bucur (Patent Number 5,674,059), in view of Blanchard (Pub. Number 3, 955, 540).

Bucur discloses the invention as recited above, and further discloses a fuel system (412, 416); however, Bucur fails to disclose an injector pump, fuel injectors, and their location.

Blanchard teaches that it is conventional in the rotary internal combustion art, to utilize an injection pump (49) and fuel injectors (10) (See Figures 1-4); however

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Blanchard fails to disclose an injection pump and fuel injectors locating the internal rotor.

It is the examiner's position that the positioning of an injection pump and fuel injectors in the above claimed positions would have been obvious to one having ordinary skill in the art. More specifically, one having ordinary skill in the art would have positioned an injection pump and fuel injectors in the internal rotor. The use of an injection pump and fuel injectors being located in the internal rotor would have provide a compact arrangement for the modified Bucur device.

Allowable Subject Matter

Claims 17-19, 21-25 and 28 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

The IDS (PTO-1449) filed on October 07, 2005 has been considered. An initialized copy is attached hereto.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kazempour (US Patent Number 6,776,136 B1) discloses a rotary engine.

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- Pipaloff (US Patent Number 5,597,295) discloses a rotary fluid machine with at least two ring members carrying vanes.
- Olson (US Patent Number 4,902,209) discloses a sliding segment rotary fluid power translation device.
- Richter (US Patent Number 4,385,873) discloses a rotary vane type pump or motor.
- Dawes (US Patent Number 3,485,179) discloses rotary pumps.
- Daisaku (US Patent Number 3,437,079) discloses a rotary machine of blade type.
- Kelly (US Patent Number 3,426,735) discloses a compound rotary engine.
- Butler (US Patent Number 2,965,288) discloses a compound rotary elastic fluid compressor.
- Schneider (US Patent Number 1,497,741) discloses fluid operated change speed gear.
- Bullard (US Patent Number Re. 17,326) discloses an internal combustion engine.
- Murata (Patent Number JP 58-051291 A) discloses a fluid machine.
- Daisaku (Pub. Number FR 1418535 A) discloses a rotary machine.
- Rubury et al. (Pub. Number GB 534339) discloses improvements in and relating to engines and pumps having sliding vanes.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (571) 272-4867. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TTB
March 13, 2007



Thai-Ba Trieu
Primary Examiner
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